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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,338	10/30/2003	Jon L. Nagel	2003-0211-US	7510

7590 06/01/2006  
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EXAMINER

AL NAZER, LEITH A

ART UNIT PAPER NUMBER

2821

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/697,338		NAGEL ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Leith A. Al-Nazer		2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24-27 is/are allowed.
- 6) ☒ Claim(s) 1-8, 15, 19, 22, and 23 is/are rejected.
- 7) ☒ Claim(s) 9-14, 16-18, 20 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 and 01 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

*Tan Ho*  
**TAN HO**  
**PRIMARY EXAMINER**

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 19, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,246,371 to Kurz et al.

With respect to claim 1, Kurz teaches an antenna comprising: a planar conductor (2; figure 1); wherein the planar conductor is self-supporting (figure 1). Claim 1 requires the radiating pattern of the antenna be substantially isotropic. Kurz teaches all of the structural elements recited in claim 1, and therefore, the system of Kurz inherently would have a substantially isotropic radiation pattern.

With respect to claim 2, Kurz teaches the antenna comprising substantially no dielectric material (column 6, lines 46-54).

With respect to claim 3, Kurz teaches the antenna comprising no more than one percent (1%) dielectric material by weight (column 6, lines 46-54).

With respect to claim 4, Kurz teaches the planar conductor comprising at least one metal (column 6, lines 46-54).

With respect to claim 5, Kurz teaches the antenna comprising at least ninety-nine percent (99%) metal by weight (column 6, lines 46-54).

With respect to claim 6, Kurz teaches the antenna comprising at least ninety-five percent (95%) metal by weight (column 6, lines 46-54).

With respect to claim 7, Kurz teaches the antenna further comprising a planar meander (2; figure 1).

With respect to claim 8, Kurz teaches dielectric material being attached to the planar conductor (column 5, lines 50-65; column 6, lines 46-54).

With respect to claim 19, Kurz teaches the antenna being mounted on a mobile device (figure 14).

With respect to claim 22, Kurz teaches the planar conductor being malleable (column 6, lines 46-54).

3. Claim 23 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent Application Publication No. 2002/0075188 to Wu.

With respect to claim 23, Wu teaches an antenna comprising: a conductor forming a partially open cylindrical shape (figures 3 and 5); wherein the conductor is self-supporting (figures 3 and 5). Claim 23 requires the radiating pattern of the antenna be substantially isotropic. Wu teaches all of the structural elements recited in claim 23, and therefore, the system of Wu inherently would have a substantially isotropic radiation pattern.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-7, 15, and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,677,905 to Deguchi et al.

With respect to claim 1, Deguchi teaches an antenna comprising: a planar conductor (figure 1B); wherein the planar conductor is self-supporting (figure 1B). Claim 1 requires the radiating pattern of the antenna be substantially isotropic. Deguchi teaches all of the structural elements recited in claim 1, and therefore, the system of Deguchi inherently would have a substantially isotropic radiation pattern.

With respect to claim 2, Deguchi teaches the antenna comprising substantially no dielectric material (column 2, lines 48-50).

With respect to claim 3, Deguchi teaches the antenna comprising no more than one percent (1%) dielectric material by weight (column 2, lines 48-50).

With respect to claim 4, Deguchi teaches the planar conductor comprising at least one metal (column 2, lines 48-50).

With respect to claim 5, Deguchi teaches the antenna comprising at least ninety-nine percent (99%) metal by weight (column 2, lines 48-50).

With respect to claim 6, Deguchi teaches the antenna comprising at least ninety-five percent (95%) metal by weight (column 2, lines 48-50).

With respect to claim 7, Deguchi teaches the antenna further comprising a planar meander (figure 1B).

With respect to claim 15, Deguchi teaches a secondary planar conductor (14; figure 1B) being attached to the planar conductor.

With respect to claim 19, Deguchi teaches the antenna being mounted on a mobile device (figure 19).

6. Claims 1-7, 15, 19, 22, and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication No. 2004/0051672 to Nevermann et al.

With respect to claim 1, Nevermann teaches an antenna comprising: a planar conductor (figure 1); wherein the planar conductor is self-supporting (figure 1). Claim 1 requires the radiating pattern of the antenna be substantially isotropic. Nevermann teaches all of the structural elements recited in claim 1, and therefore, the system of Nevermann inherently would have a substantially isotropic radiation pattern.

With respect to claim 2, Nevermann teaches the antenna comprising substantially no dielectric material (paragraphs 0004-0006 and 0014).

With respect to claim 3, Nevermann teaches the antenna comprising no more than one percent (1%) dielectric material by weight (paragraphs 0004-0006 and 0014).

With respect to claim 4, Nevermann teaches the planar conductor comprising at least one metal (paragraphs 0004-0006 and 0014).

With respect to claim 5, Nevermann teaches the antenna comprising at least ninety-nine percent (99%) metal by weight (paragraphs 0004-0006 and 0014).

With respect to claim 6, Nevermann teaches the antenna comprising at least ninety-five percent (95%) metal by weight (paragraphs 0004-0006 and 0014).

With respect to claim 7, Nevermann teaches the antenna further comprising a planar meander (figure 1).

With respect to claim 15, Nevermann teaches a secondary planar conductor (12) being attached to the planar conductor.

With respect to claim 19, Nevermann teaches the antenna being mounted on a mobile device (paragraph 0005).

With respect to claim 22, Nevermann teaches the planar conductor being malleable (paragraphs 0004-0006 and 0014).

With respect to claim 23, Nevermann teaches an antenna comprising: a conductor forming a partially open cylindrical shape (figure 2); wherein the conductor is self-supporting (figure 2). Claim 23 requires the radiating pattern of the antenna be substantially isotropic. Nevermann teaches all of the structural elements recited in claim 23, and therefore, the system of Nevermann inherently would have a substantially isotropic radiation pattern.

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1-6 and 19 are rejected under 35 U.S.C. 102(a) as being anticipated by RU 2 205 478 to Lomovskaja et al.

With respect to claim 1, Lomovskaja teaches an antenna comprising: a planar conductor (figure 1); wherein the planar conductor is self-supporting (figure 1); and wherein the radiating pattern of the antenna is substantially isotropic (page 6 of translated Lomovskaja document).

With respect to claim 2, Lomovskaja teaches the antenna comprising substantially no dielectric material (figure 1; pages 5 and 6 of translated Lomovskaja document).

With respect to claim 3, Lomovskaja teaches the antenna comprising no more than one percent (1%) dielectric material by weight (figure 1; pages 5 and 6 of translated Lomovskaja document).

With respect to claim 4, Lomovskaja teaches the planar conductor comprising at least one metal (figure 1; pages 5 and 6 of translated Lomovskaja document).

With respect to claim 5, Lomovskaja teaches the antenna comprising at least ninety-nine percent (99%) metal by weight (figure 1; pages 5 and 6 of translated Lomovskaja document).

With respect to claim 6, Lomovskaja teaches the antenna comprising at least ninety-five percent (95%) metal by weight (figure 1; pages 5 and 6 of translated Lomovskaja document).



With respect to claim 19, Lomovskaja teaches the antenna being mounted on a mobile device (page 1 of translated Lomovskaja document).

***Allowable Subject Matter***

9. Claims 9-14, 16-18, 20, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claims 24-27 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter:

With respect to independent claim 24, the prior art of record fails to teach or suggest an antenna comprising a planar conductor, wherein the planar conductor is self-supporting; wherein the radiating pattern of the antenna is substantially isotropic; wherein the antenna is no more than eight tenths of an inch (0.8") in height; and wherein the radio frequency performance of the antenna at 2.440 gigahertz (GHz) is within three decibels (3db) of the radio frequency performance of a standard quarter wave isotropic antenna.

***Response to Arguments***

12. Applicant's arguments filed 17 March 2006 with respect to claims 1-6 and 19 have been fully considered but they are not persuasive.

First, Applicant objects to the use of Lomovskaja without a translation. As a result, Examiner includes a complete translation of Lomovskaja in the present Office Action. Applicant argues that Lomovskaja does not teach the limitations recited in claims 1-6 and 19. Examiner disagrees. Figure 1 and pages 1, 5, and 6 of the translated document of Lomovskaja teach all of the limitations recited in claims 1-6 and 19, as is outlined in the rejection (paragraphs 7 and 8) above.

***Communication Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leith A. Al-Nazer whose telephone number is 571-272-1938. The examiner can normally be reached on Monday-Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LA

  
**TAN HO**  
**PRIMARY EXAMINER**